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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,568	11/15/2001	Yoshinori Miwa	862.C2438	7349

5514 7590 10/08/2002

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EXAMINER

NGUYEN, HUNG

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,568

Applicant(s)

MIWA, YOSHINORI

Examiner

Hung Henry V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure should be carefully reviewed and ensure that any and all grammatically, idiomatic, and spelling or other minor errors are corrected. For example, reference to "reticule 1" on page 14, line 26, should read --reticle 1--. Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1 and 18, 20, 21, 24-29, the recitation of "a third housing for transferring the master between inside and outside of said first housing" is vague and indefinite. It is understanding that "a housing" is for enclosing or housing or accommodating "something". It is confusing how a housing can "transfer" the master between inside and outside of the first housing as claimed.

As to claim 6, the claimed recitation of "said housing is arranged outside said first housing in tight contact with said first housing" is ambiguous and not clearly understood.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17, 20 and 21, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenaga et al (U.S.Pat. 6,451,507) in view of Kuiper et al (U.S.Pat. 6,414,744).

With regard to claims 1, 20-21 and 26-29, Suenaga et al (fig.4) discloses an exposure apparatus for transferring a predetermined pattern formed on a reticle onto a substrate comprising substantially all structures of the instant invention as claimed including: a first chamber (170) for surrounding an exposure position of the reticle (R); a second housing (210) for stocking the reticle; and a third housing for (174) for housing the reticle which is transferred between inside and outside of the first housing wherein the interiors of the first and third housing are detected and controlled to a predetermined temperature (see col.18, lines 26 thru col.19, line 50), and the reticle transferred from the outside of the first chamber (170) via the third housing is stocked by the second housing (see fig.4). Each of housing comprises opening/or closing means (173, 177 for instance); the second housing has a shelf like structures for stocking a plurality of reticles; the exposure apparatus includes alignment means for aligning the master (see col.6, lines 1-13) and transfer means for transferring the reticle between the housings (see fig.4). Suenaga further teaches the predetermined temperature including an inert gas atmosphere (see col.12, lines 1 thru col.16, line 42 and col.18, lines 53-60) and the atmosphere is controlled by a

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circulation system via concentration sensors (137A-137D) and the exposure light source includes an F2 excimer laser (see col.15, line 17). Suenaga does not expressly disclose the second housing is controlled to "a predetermined atmosphere". Kuiper et al teaches an exposure apparatus having a mask library (50) which is controlled to a predetermined atmosphere (see col.6, line 37-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Suenaga and Kuiper to obtain the invention as specified in claims 1-17, 20-21, and 26-29. It would have been obvious to a skilled artisan to have the second housing (210) for stocking the reticle of Suenaga being controlled at a predetermined atmosphere as taught by Kuiper. The purpose of doing so would have been to prevent the reticle from being damaged by undesired temperature and/or being contaminated.

It is noted that with respect to claim 5, while Suenaga teaches the second housing is arranged outside the first housing (as recited in claim 6), Suenaga as modified by Kuiper lacks to disclose the second housing being arranged in the first housing. It is the examiner's position that it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the second housing in the first housing for at least the purpose of simplification of structures and/or the transportation of the reticle between the exposure position and the stocking is not complicated. Further, it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

5. Claims 18-19, 22-25 are rejected under Claims 22-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Suenaga et al (U.S.Pat. 6,451,507) in view of Kuiper et al (U.S.Pat. 6,414,744) and further in view of Umatate et al (U.S.Pat. 5,243,377).

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With regard to claims 18-20, 22-25, Suenaga et al as modified by Kuiper et al discloses an exposure apparatus/method comprising substantially all of the limitations of the instant claims as discussed except for the apparatus being connected to a computer/and or a local area network. Umatate et al discloses a plural exposure apparatuses and a host system (H-COM), a network interface, a computer and the information relating to each of the exposure apparatuses can be communicated by a computer network (see fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Suenaga as modified by Kuiper and Umatate to obtain the claimed invention. It would have been obvious to a skilled artisan to employ a computer network/LAN as taught by Umatate for the exposure apparatus/method of Suenaga as modified by Kuiper for the purpose of managing, analyzing, maintenance and troubleshooting of the exposure apparatus and thus improving the operation of the device.

Prior Art Made of Record

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iizuka (U.S.Pat. 4,999,671) teaches a reticle cassette library which is coupled to the air conditioned chamber of an exposure apparatus.

Kamiya (U.S.Pat. 4,989,031) teaches an exposure apparatus having a plurality of chambers for housing different regions of the exposure apparatus wherein the interiors of each chamber is controlled to a predetermined temperature.


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Nakamura et al (U.S.Pat. 6,337,732) teaches an exposure apparatus having chamber with a maintenance door and a controller for controlling a lock mechanism of the door in accordance with the temperature information of the chamber.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7723 for regular communications and 703-305-7723 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


Hung Henry V Nguyen
Examiner
Art Unit 2851

hvn
October 3, 2002